

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-029476**Date Inspected:** 25-Apr-2013**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job site**CWI Name:** Andrew Keech**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower W-042 #18 "M"**Summary of Items Observed:**

On this date, Quality Assurance Inspector (QAI) Robert A. DeArmond was present at the San Francisco Oakland bay Bridge job site at Yerba Buena Island to observe and perform Non-Destructive testing for the San Francisco Oakland Bay Bridge (SFOBB) project. This Quality Assurance Inspector (QAI) observed the following work performed by American Bridge/Fluor Enterprises (AB/F) personnel at the locations noted below:

This QAI performed ultrasonic testing in tandem with ABF-QC personnel; during a joint venture pulse echo ultrasonic testing (PEUT) and indirect pitch catch ultrasonic testing (PCUT) of Electroslag welds. The purpose of this additional non-destructive weld evaluation is to further evaluate previously documented planar indications, therefore PEUT and PCUT test methods were utilized. All test locations were selected by ABF personnel, it should be noted; no specific PEUT and /or PCUT rejection, acceptance, and calibration criteria was specified, therefore this testing is for informational purposes only.

The following locations were scanned utilizing the PEUT and PCUT scanning technique.

1. Location: M (Weld No.: W-042 # 18 Face B)

Joint: 60 mm 150-degree T-Joint, Y Location: 5700

PEUT Indication Rating: +3db

Depth 16 mm Surface Distance: 121 mm

PCUT Indication Rating: +3db

Spacing: 88 mm

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

During PCUT planner indication appeared to be detected, however index spacing was too close to fully maximize reflected sound energy, therefore +3db was recorded. It was discussed between QAI and QC, that additional scanning from side A would be performed to verify and/or maximize indication.

2. Location: M (Weld No.: W-042 # 18 Face B)

Joint: 60 mm 150-degree T-Joint, Y Location: 5670

PEUT Indication Rating: +3db

Depth 21 mm Surface Distance: 108 mm

PCUT Indication Rating: +15db

Spacing: 110 mm

3. Location: M (Weld No.: W-042 # 18 Face B)

Joint: 60 mm 150-degree T-Joint, Y Location: 5560

PEUT Indication Rating: +18db

Depth 38 mm Surface Distance: 60 mm

PCUT Indication Rating: +10db

Spacing: 210 mm

4. Location: M (Weld No.: W-042 # 18 Face B)

Joint: 60 mm 150-degree T-Joint, Y Location: 5240

Transverse Indication

5. Location: M (Weld No.: W-042 # 18 Face B)

Joint: 60 mm 150-degree T-Joint, Y Location: 4840

PEUT Indication Rating: +6db

Depth 18 mm Surface Distance: 116 mm

PCUT Indication Rating: +12db

Spacing: 95 mm

Summary of Conversations:

As mentioned above between QA and QC concerning this project

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Gary Thomas (916) 764-6027, who represents the Office of Structural Materials for your project.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

Inspected By: DeArmond,Robert

Quality Assurance Inspector

Reviewed By: Mertz,Robert

QA Reviewer